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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,581	07/23/2003	Michael Reuschel	GS 0351 A US DIV	7736

7590 08/17/2004
Alfred J. Mangels
4729 Cornell Road
Cincinnati, OH 45241-2433

EXAMINER

NGUYEN, THU V

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,581

Applicant(s)

REUSCHEL ET AL.

Examiner

Thu Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/630,697.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

The preliminary amendment filed on July 23, 2003 has been entered. By this amendment, claims 1-7 have been canceled, and claims 8-10 are now pending in the application.

Drawings

1. The drawings are objected to because:
 - a. Language in Figures 2-3 should be translated to English language.
 - b. Boxes (40, 52, etc) in fig.1 should include descriptive words (or a specific name for each box).
 - c. In figure 3, the three connections from box 50 to signals 25 does not contain arrows to clearly indicate input or output status of the connected lines to box 50.

Claim Objections

2. Claims 8, 10 are objected to because of the following informalities:
 - a. In claim 8, line 17, the phrase “and in that” should be corrected to “and”.
 - b. In claim 8, line 14, the claimed “the regulation value” should be corrected to “the control value” to maintain consistency with the “control value” in line 12.

- c. In claim 10, line 3-4, the claimed “wherein it triggers predetermined functions in relation to changes in said changes” should be corrected to “wherein the monitor triggers predetermined functions in relation to said changes”.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. In claim 8, line 2, the phrase “in particular” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- b. In claim 8, line 14, the claimed “as the set point value” is ambiguous. The claim lacks of antecedent basis. Further, it is not clear if it is the “preliminary control value” or if it is the “regulation value” that is used as a set point value.
- c. In claim 8, line 19, the claimed “the control variable” lacks of antecedent basis. It is not clear what the “control variable” is. Does “the control variable” imply the “control value” from the regulator in claim 8, lines 11-12?

- d. In claim 9, line 1-2, the claimed limitation “a monitor for generating predetermined functions” is ambiguous. It is not clear what specifically the “predetermined functions” means. The specification does not seem to provide proper indication of the “predetermined function” to support the claimed language.
- e. Claim 10 is rejected as being dependent on the rejected base claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al (U.S Patent No. 6,292,730 B1).

As per claim 8, Takizawa discloses an apparatus for regulating the transmission ratio of a continuous variable transmission of a motor vehicle. The apparatus comprises: sensors 62, 64, 65-68, 69 (fig.2) for detecting operational transmission parameters (col.5, lines 33-48); an electronic control unit including a microprocessor 61 (fig.2), and at least one memory (col.5, lines 60-67; col.6, lines 1-14), the electronic control unit includes a preliminary control device 75 (fig.3A) that determines a preliminary control value RatioO as a function of at least one

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transmission operating parameter No (col.8, lines 62-64); a regulator 79 (fig.3A) that compares a measured transmission ratio Ratio with a reference transmission ratio and derives a control value RtoERR (col.8, lines 64-67); an adjusting device including components 84, 90, 82, 86, 87 (fig.3A) that receives the preliminary control value RatioO and the regulation value RToERR as the set point value in order to adjust the transmission (col.9, lines 30-58). Takizawa, further, teaches that the preliminary control value is determined as a function of at least two operating parameters (col.8, lines 62-64).

Takizawa does not explicitly disclose storing the operating parameters associated with reference transmission ratios in a memory. However, Takizawa teaches including a memory device (col.5, lines 29-32), and receiving input data from the sensors (col.5, lines 36-40), further, storing input data in a memory location would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to store operating parameters Ni, No of Takizawa to a memory location in order to be able to retrieve the data in later processes.

Takizawa does not teach storing the preliminary control value and adjusting the preliminary control value so that the measured transmission ratio coincides with the reference transmission ratio when the control variable is approximately zero. However, storing pre-calculated data as a function of variable in a look up table to avoid recalculating the data each time the variable changes would have been old and well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to store the preliminary control value in a look up table as function of at least two operating parameters NI*,

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No in the apparatus of Takizawa in order to avoid performing division each time the parameter changes. Further, since Takizawa teaches that the control value R_{toERR} is obtained from the difference of the measured transmission ratio Ratio from box 78 (fig.3A) and the reference transmission ratio RatioO 75 (fig.3A) (col.8, lines 64-67), Takizawa inherently discloses that when the control value is at least approximately zero, measured transmission ratio 78 (fig.3A) coincides with the reference transmission ratio 75 (fig.3A) as claimed.

As per claim 9, Takizawa teaches a monitor (including components 84 and 90 (fig.3A)) that generates predetermined functions based upon changes in the preliminary control value (col.9, lines 49-58).

As per claim 10, Takizawa discloses that the monitor 90 (fig.3A) receives the changes in the transmission ratio TS_{Ratio0} (fig.3A) and the changes of the controlled variables FB_{rto} (fig.3A), and the monitor triggers predetermined functions (deducting the speed ratio from the controllable max/min speed ratios; and calculating limiting values) in relation to the changes (col.9, lines 66-67; col.10, lines 1-9).

Any response to this action should be mailed to:

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or faxed to:

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(703) 305-7687, (for formal communications intended for entry)

Or:

(703) 305-7687 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451

Crystal Drive, Arlington. VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703) 305-8233. The fax phone number for this Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1111.



THU V. NGUYEN
PRIMARY EXAMINER

August 14, 2004